

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	175414	(spin adj bulb or spin adj bubble or ((read\$3 or reproduc\$3) near2 (element or device\$1)) or mr or DOMR or mre or magneto adj2 (resistiv\$3 or resistance\$1) or magnetoresist\$5 or amr or magnetic\$4 adj2 (resistiv\$3 or resistance\$1) or SFSV or SVMR or TuMR\$1 or CMR\$1 or GMR\$1 or spin adj2 valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or tnr\$1 or mram\$1 or magnetic adj2 memor\$3 or magnetic adj random adj access adj memor\$3 or DSV or TJM or MTJ or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)).ti,ab,clm. or "360/113" or 360/313-327.33.ccls. or 338/32\$2.ccls. or 324/207.21.ccls. or 324/252.ccls. or 365/171.ccls. or 365/173.ccls. or 428/811-811.5.ccls. or 148/108.ccls.	FPRS; EPO; JPO; DERWENT	ADJ	OFF	2007/01/03 16:20
L2	27374	(Ferripin\$6 or ferri adj pin\$6 or ruthenium or Ru or ferrimagnet\$5 or ferri adj2 magnet\$5 or antiparallel or anti adj parallel or ((antiferromagnetic or AFM or anti adj ferromagnetic\$5 or exchange) adj2 coupling\$1) or APC or AAF or SyAF or SAF or synthetic\$4 adj2 (antiferro or antiferromagnet\$5 or anti adj ferromagnet\$5 or coupling) or artificial adj2 (antiferro or anti adj ferromagnet\$5 or antiferromagnet\$5) or MSSV or SSV or AP1 or AP2 or APC1 or APC2 or AFC or ((reference or keeper) near2 layer\$1)).clm.	US-PGPUB; USPAT	ADJ	OFF	2007/01/03 16:20

## EAST Search History

L3	47254	((spin adj bulb or spin adj bubble or ((read\$3 or reproduc\$3) near2 (element or device\$1)) or mr or DOMR or mre or magneto adj2 (resistiv\$3 or resistance\$1) or magnetoresist\$5 or amr or magnetic\$4 adj2 (resistiv\$3 or resistance\$1) or SFSV or SVMR or TuMR\$1 or CMR\$1 or GMR\$1 or spin adj2 valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or tnr\$1 or mram\$1 or magnetic adj2 memor\$3 or magnetic adj random adj access adj memor\$3 or DSV or TJM or MTJ or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1))).clm.	US-PGPUB; USPAT	ADJ	OFF	2007/01/03 16:25
L4	3320	(coercivit\$4 or Oe).clm.	US-PGPUB; USPAT	ADJ	OFF	2007/01/03 16:26
L5	311	2 and 3 and 4	US-PGPUB; USPAT	ADJ	OFF	2007/01/03 16:26
L6	20081	(Ru or ruthenium).clm.	US-PGPUB; USPAT	ADJ	OFF	2007/01/03 16:26
L7	127	5 and 6	US-PGPUB; USPAT	ADJ	OFF	2007/01/03 16:26